

spiracle of joint 2 to the base of anal flap across the pale flesh-colored spiracles. Feet green. Later the yellow stripe is more distinct, but otherwise unchanged.

*Stage V.*—Head rounded, outline circular, clypeus half way to vertex, secondary granules dense, large, colorless, setæ minute; yellowish green, ocelli black; width 2.6 mm. Body cylindrical, uniform, segments 6-annulate, annulet 1 large. Soft green, minutely dark pilose, but the hair tubercles pale. A yellow stigmatal line from the spiracle of joint 2 to the anal flap, white on its lower edge, the contained spiracles flesh color, a brown dot below each. Feet pale. No large setæ except on joint 2 and the anal flap, none glandular. Later the green color becomes lighter, very soft, the feet and subventral region whitish. Skin nearly smooth, densely dotted with green spots like the emergence holes of parasitic ichneumons, the spots sparser than the secondary hairs. The yellow stigmatal line is edged with dark green above and below. Shortly before pupation the color changes still further. Dorsum clear greenish yellow with large blackish green specks, two to four on each annulet on each side of the dorsal vessel, the lowest on the second annulet being lateral. Stigmatal line rather broad, dark yellow, edged above with blue, irregularly streaked by the annulets, a crimson line between the blue and yellow; subventer clear yellow, feet reddish amber. *Pupa* as in *C. exbule*, the cases strongly projecting and arched. Green mottled with purplish, a purplish dorsal line and yellowish lateral one; behind the cases with three irregular white spots on each side.

---

## Notes on Coleoptera.

By GEORGE A. EH RMANN, Pittsburg, Pa.

### **Brennus Cristatus** Harr.

One female that has the left antennal joints all greatly shortened and reduced to ten in number, the terminal joint is so much reduced that, in examining it through a magnifier, it is but a little round knob. The other, or "right antenna," is normal. This specimen came from the Belfrage collection and was collected in the Santa Cruz Mountains, California.

### **Dicaelus teter** Bon.

A male, captured some time ago at Baldwin Station, that has a well-developed, double foreleg, beginning at the joint of the tibiae, or knee, and extends to the tarsus. This false member could not work independently, as it only shoots off below the lower side of the joint. The tarsus joints are not fully formed,

nor are the claws fully developed. This false member is on the left foreleg.

**Dorcus parallelus** Say.

In Mr. H. G. Klages's collection of Coleoptera of Jeannette, Pa., there is a specimen of this species which I believe is of the male sex that has two sets of well-developed tarsal joints and claws. This is on the right foreleg.

**Orthosoma brunneum** Forst.

A specimen of this I took, which proved to be a female on examination of the genitalia and other characteristic points, except in the antennæ. The left is that of a male, while that on the right is female.

The number of joints are the same, but, as coleopterists know, that in this species of prionid the sexual character in the antennæ is that the male have longer and heavier antennæ than are found in the female. While in the female the joints are shorter, and not nearly so heavy, the number of joints in both sexes are the same.

**Neoclytus capræa** Say.

In the Hamilton collection, which is now at rest in the Carnegie Museum, of Pittsburg, there is a specimen of this species that has three antennæ, one on the left side and two on the right. With close inspection I noticed that the basal joint is normal in the latter, and from this two joints branch out, both continuing to the end, forming two normal and well-developed antennæ.

This specimen, Professor Jerome Schmitt has informed the writer, was taken at St. Vincent, Westmoreland County, Pa.

**Cyclocephala immaculata** Oliv.

This I captured on July 12th, 1900, under the electric light in Charleroi. I believe this is the first record of this insect being taken in this locality.

**Hoplosia nubila** Lec, etc.

From May the 30th until June 20th, 1900, I took 47 specimens of this pretty longicorn. I also took quite a number of

*Saperda vestita* Say, and *Amphionycha flammata* Newm. These were mostly taken from the trunk and heavier branches of the American Linden. All three species were feeding on the foliage as well as mating on the trunk and larger branches.

**Callida viridipennis** Say.

I found three specimens of this pretty carabid hibernating under the bark of the oak in midwinter "Feb. 10, 1898," and a fourth specimen I beat from Scrub Hickory in May 13th of the same year.

---

## Odonata from Arkansas.

By CHAS. C. ADAMS.

The specimens listed below were collected by Mr. F. M. McElfresh, in Marion County, Arkansas, during the season of 1897. The region is mountainous and the streams rocky.

1. **Calopteryx maculata** Beauv.

June 1st, Jemmey's Creek.

2. **Hetærina Americana** Fabr.

June 1st and 10th, White River.

3. **Enallagma exsulans** Hag.

June 1st and 5th, White River.

4. **Argia putrida** Hag.

June 1st, White River; June 10th, Jemmey's Creek.

5. **Argia tibialis** Ramb.

May 30th, June 1st, White River.

6. **Argia sedula** Hag.

June 1st, White River; June 1st and 27th, Wild Cat Creek.

7. **Argia apicalis** Say.

May 30th, June 1st and 21st, Jemmey's Creek.

8. **Boyeria vinosa** Say.

July 16th, Jemmey's Creek.

9. **Æschna** ♀ of the **verticalis**, **clepsydra** and **constricta** group.

July 28th, Jemmey's Creek..